

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of fabricating an integrated circuit comprising:
forming or providing a ~~metal solution, the solution also containing metal ions and~~
carbon nanotubes; and
~~forming a co-depositing the metal layer ions and the carbon nanotubes onto a~~
substrate utilizing the solution, said co-depositing including a selected one of
co-electroplating, co-electroless plating, co-electrophoretically deposition, and
spin-coating.
2. (Currently Amended) The method of claim 1 wherein the solution ~~containing~~
~~carbon nanotubes~~ comprises a carbon nanotube suspension.
3. (Previously Presented) The method of claim 2 wherein the carbon nanotube
suspension comprises single wall, arm chair carbon nanotubes.
4. (Currently Amended) The method of claim 2 wherein the solution ~~containing~~
~~carbon nanotubes~~ further comprises a support electrolyte.
5. (Currently Amended) The method of claim 2 wherein the solution ~~containing~~
~~carbon nanotubes~~ further comprises a reducing agent.
6. (Original) The method of claim 5 wherein the reducing agent is a reducing agent
selected from the group consisting of hyphophosphite, amino-borane, formaldehyde,
glyoxylic acid, hydrazine and redox pairs.
7. (Original) The method of claim 6 wherein the redox pairs is a redox pair selected
from the group consisting of (Ti³⁺, Ti²⁺) and (Fe²⁺, Fe³⁺).

8. (Currently Amended) The method of claim 2 wherein the solution ~~containing carbon nanotubes~~ further comprises a complexing agent.
9. (Original) The method of claim 8 wherein the complexing agent is a complexing agent selected from the group consisting of tartrate, citric acid and ethylenediaminetetra-acetic acid.
10. (Currently Amended) The method of claim 1 wherein the metal ~~solution-ions~~ comprises one or more metal ions selected from the group consisting of copper, silver, gold, aluminum, tin, indium, nickel, cobalt, iron, cadmium, chromium, ruthenium, rhodium, rhenium, antimony, bismuth, platinum, zinc, palladium, manganese, iridium, osmium, molybdenum, tungsten and alloys of the afore-enumerated metals.
11. (Original) The method of claim 2 wherein the carbon nanotube suspension comprises:
- a plurality of single-walled, arm chair carbon nanotubes; and
 - a solvent selected from the group consisting of water, ethanol, methanol and ethylene glycol.
- 12-14. (Canceled)
15. (Currently Amended) The method of claim 44-1 further comprising annealing the electrophoresed substrate.
16. (Canceled)
17. (Currently Amended) The method of claim 46-1, wherein said co-depositing comprises spin-coating the metal ions and the carbon nanotubes onto the substrate utilizing the solution, and further comprising annealing the substrate with the spun-on solution.
18. (Original) The method of claim 1 further comprising removing excess materials.

19. (Previously Presented) The method of claim 1 further comprising depositing a passivation layer on the metal layer.

20-30 (Canceled)

31. (New) The method of claim 1, further comprising, prior to said co-depositing:
forming an etch stop layer on the substrate;
forming an oxide layer on the etch stop layer;
forming an opening in the oxide layer;
forming a barrier layer on the oxide layer in the opening; and
wherein said co-depositing the metal ions and the carbon nanotubes onto a substrate comprises co-depositing the metal ions and the carbon nanotubes in the opening.

32. (New) The method of claim 31, wherein said forming the opening in the oxide layer comprises forming a via.

33. (New) The method of claim 32, wherein said forming the opening further comprises forming a trench.

34. (New) The method of claim 31, further comprising forming a seed layer on the barrier layer.

35. (New) The method of claim 1, wherein said forming or providing the solution containing metal ions and carbon nanotubes comprises forming or providing a solution containing metal ions and solubilized carbon nanotubes.

36. (New) The method of claim 1, wherein said forming or providing the solution containing metal ions and carbon nanotubes comprises forming or providing a solution containing metal particles having a diameter in a range of about 10 nanometers to about 50 nanometers.